

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-4. (Canceled)

5. **(New)** In a piezoelectric actuator, comprising

a multilayer construction of piezoelectric layers (2) and inner electrodes (3, 4), which are located in a piezoelectrically active region (A) between the layers and can be acted upon by an electrical voltage, and

at least one inactive region (B, C) without inner electrodes in the layer construction of the piezoelectric actuator (1), the improvement wherein

the at least one inactive region (B, C) without inner electrodes is formed of a material whose mechanical and thermal properties match the mechanical and thermal properties of the active region (A), including the combination and interaction of the material comprising the piezoelectric layers (2) and the inner electrodes (3, 4).

6. **(New)** The piezoelectric actuator according to claim 5, wherein

the inactive regions (B, C) and the active region (A) are made from an identical ceramic basic substance, with additional dopants inserted into the inactive regions (B, C).

7. **(New)** The piezoelectric actuator according to claim 6, wherein

the basic substance is lead zirconate titanate (PZT), and
the dopant is silver.

8. **(New)** The piezoelectric actuator according to claim 5, wherein,

as the matching mechanical and thermal properties of the piezoelectric layers (2) of the inactive region (B, C) and of the active region (A), the thermal expansion, the elasticity, and the shrinkage upon sintering of the multilayer construction of the piezoelectric actuator (1) may be employed.

9. **(New)** The piezoelectric actuator according to claim 6, wherein,

as the matching mechanical and thermal properties of the piezoelectric layers (2) of the inactive region (B, C) and of the active region (A), the thermal expansion, the elasticity, and the shrinkage upon sintering of the multilayer construction of the piezoelectric actuator (1) may be employed.

10. **(New)** The piezoelectric actuator according to claim 7, wherein,

as the matching mechanical and thermal properties of the piezoelectric layers (2) of the inactive region (B, C) and of the active region (A), the thermal expansion, the elasticity, and the shrinkage upon sintering of the multilayer construction of the piezoelectric actuator (1) may be employed.